



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,220	07/30/2003	Richard T. Howard	MFS-31843-1	3295
30698	7590	09/29/2004	EXAMINER	
NASA/MARSHALL SPACE FLIGHT CENTER LSOI/OFFICE OF CHIEF COUNSEL MSFC, AL 35812				KALIVODA, CHRISTOPHER M
		ART UNIT		PAPER NUMBER
		2883		

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/631,220	HOWARD, RICHARD T.
	Examiner	Art Unit
	Christopher M. Kalivoda	2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 7/30/2003.

2a)  This action is FINAL.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-14 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 30 July 2003 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/30/2003.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_ . / /

## DETAILED ACTION

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specifically, there are references to U.S. Patent 4,846,552 in paragraph 0017, line 8, U.S. Patent 5,718,496 in paragraph 0020, line 4 and non-Patent Literature "The Video Guidance Sensor" in paragraph 0021, line 3 that are not disclosed in the IDS. In addition, it appears that U.S. 6,294,665 disclosed by Applicant in the IDS may be a typographical error since the inventor of this patent is different than on the IDS and the patent describes polysaccharides.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 - 5 are rejected under 35 U.S.C. 102(b) as being anticipated by

Chan-Clou et al., WO 02/33463.

Regarding independent claim 1, Chan-Clou et al. teach an optical fiber (Fig 4) for transporting a beam of light from a laser light source and projecting the beam of light towards a target in an even illumination pattern (abstract, line 1) comprising:

an input end for receiving the beam of light (Fig 4); and

an exit end for projecting the beam of light towards the target (Fig 4)

wherein the exit end has at least one diffractive optical pattern formed thereon (Fig 4-concentric circular structure at fiber's end).

The limitations of Chan-Clou et al. clearly fully meet applicant's claimed limitations.

Regarding claim 2, the diffractive optical pattern is formed by one of the group from etching, molding and cutting since the pattern is created by photo-inscription (page 5, line 15).

Regarding claim 3 and 4, the diffractive optical pattern is one of a binary or multi-level diffractive pattern and is continuous (Fig 4).

Regarding claim 5, the exit end has a plurality of optical diffractive patterns incorporated thereon (Fig 4).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan-Clou et al., WO 02/33463 in view of Tranchita et al., U.S. Patent 5,973,730. Regarding claim 7, Chan-Chou teaches the limitations of claim 1 as described above.

However, the reference is silent with respect to the fiber coupled to a laser diode at the input end.

Tranchita et al. teach a laser diode coupled to a fiber (abstract, line 1-2, col 2, lines 45-46 and Fig 1, ref sign 10).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Chan-Clou et al. and couple the fiber to a laser for the purpose of transmitting light for use in a surveillance system to deter criminal activity (col 1, lines 10-18).

6. Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tranchita et al., U.S. Patent 5,973,730 in view of Chan-Clou et al., WO 02/33463.

Regarding independent claim 7, Tranchita et al. teach a system for recording images using a camera (col 1, lines 10-13) comprising:

at least one laser emitting diode (abstract, line 1-2, col 2, lines 45-46 and Fig 1, ref sign 10);

at least one fiber optic coupled to a respective laser emitting diode at an input end thereof (Fig 1, ref sign 11).

However, the reference is silent with respect to the fiber having an exit end with a diffractive optical pattern formed thereon and wherein light emitted from the laser emitting diode travels through a respective fiber optic and is projected onto a target after having passed through the diffractive optical pattern.

Chan-Clou et al. teach fiber having an exit end with a diffractive optical pattern formed thereon (Fig 4).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Tranchita et al. to include the fibers of Chan-Clou et al. wherein light emitted from the laser emitting diode travels through a respective fiber optic and is projected onto a target after having passed through the diffractive optical pattern to illuminate a portion of the target for recording images of the target for the purpose of providing an illumination pattern which is uniform (Chan-Chou et al., abstract, lines 1-2).

Regarding claim 8, Tranchita et al. in view of Chan-Clou et al. teach the limitations of claim 7 as described above.

However, the reference is silent with respect to a rectangular illumination pattern.

Tranchita et al. disclose that the invention provides illumination where needed to support the field of view (col 3, line 48-50).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Tranchita et al. in view of Chan-Clou et al. to further include a rectangular illumination pattern for the purpose of surveilling an area that is rectangular shaped such as a doorway.

Regarding claim 9, Tranchita et al. in view of Chan-Clou et al. teach the limitations of claim 7 as described above. In addition, there is a plurality of fiber optics (Fig 1, ref sign 11).

However, the reference is silent with respect to a plurality of laser emitting diodes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a plurality of laser emitting diodes, since it has been upheld that mere duplication of the essential working parts in a device involves only routine skill in the art (St Regis Paper v Bemis Co., 193 USPQ 8.) for the purpose of providing backup light source in case one of the light source fails.

Regarding claim 10, the fibers are arranged in a circular fashion around the camera (col 2, lines 47-49).

Regarding claim 11, the diffractive optical pattern is formed by one of the group from etching, molding and cutting since the pattern is created by photo-inscription (page 5, line 15).

Regarding claim 12 and 13, the diffractive optical pattern is one of a binary or multi-level diffractive pattern and is continuous (Fig 4).

Regarding claim 14, the exit end has a plurality of optical diffractive patterns incorporated thereon (Fig 4).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,891,747 to Farah describes a fiber with a diffractive

pattern on the end (Fig 4a). U.S. Patent 4,846,552 and U.S. Patent 5,718,496 were disclosed in the specification but not in the IDS.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Kalivoda whose telephone number is (571) 272-2476. The examiner can normally be reached on Monday - Friday (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chris  
cmk



Brian Healy  
Primary Examiner